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REMARKS

Claims 1-13 are pending in the application. Favorable reconsideration of the application is respectfully requested in view of the following.

I. WITHDRAWAL OF PREVIOUS REJECTIONS

Applicants note with appreciation the withdrawal of the rejections set forth in the previous Office Action.

II. REJECTION OF CLAIMS 1, 4 AND 7-12 UNDER 35 USC §102(b)

Claims 1, 4 and 7-12 now stand rejected under 35 USC §102(b) based on *Ashenden et al.* Withdrawal of the rejection is respectfully requested for at least the following reasons.

As previously noted, claims 1 and 11 emphasize the particular structure of the hardware description language construct of the present invention. Claims 1 and 11 recite that the language construct, for a given communication, *defines a sender process for sending the communication*. In addition, the language construct *defines a plurality of receiver processes each for receiving the communication sent by the sender process*. In turn, the language construct effects a synchronised communication between the sender process *and* the receiver processes.

Ashenden et al. does not teach or suggest a hardware description language construct as found in the present invention. More specifically, *Ashenden et al.* does not teach or suggest a language construct which, for a given communication, defines a sender process for sending the communication and a plurality of receiver processes each for receiving the communication sent by the sender process in synchronization.

Referring to *Ashenden et al.*, the Examiner argues that Section 5.2 describes a method using a language construct which, for a given communication, defines a sender process for sending the communication and defines a plurality of receiver processes

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each for receiving the communication sent by the sender process, thereby effecting synchronized communication between the sender process and the receiver processes as recited in claims 1 and 11.

However, Section 5.2 of *Ashenden et al.* merely discusses issues to consider when designing a message-passing communication mechanism in VHDL. These issues to consider, according to *Ashenden et al.*, are:

- i. *Whether the message send operation should name a target process as the recipient, or a communication channel as the transmission medium;*
- ii. *Whether message passing should be asynchronous or synchronous;*
- iii. *Whether to allow broadcasting of messages; and*
- iv. *How message passing integrates with concrete signal assignment*

(see, *Ashenden et al.*, Page 45, right hand column, last sentence, to Page 46, left hand column, line 11).

In discussing the issue (iii), *Ashenden et al.* refers to broadcasting as amounting to multiple processes receiving from a given channel. *Ashenden et al.* draws the parallel to hardware communication, in which a signal from one source can be connected to several receivers. If synchronous communication is used, the presence of multiple receivers implies a barrier beyond which none of the receivers nor the sender can pass until message transmission occurs. (See, Page 46, right column, first full paragraph).

Ashenden et al. therefore may be describing the desirability of a language construct in which a sender process and a plurality of receiver processes are defined. However, *Ashenden et al.* does not go so far as to describe such a language construct or suggest one in any such way as to enable a person having ordinary skill in the art to arrive at the invention of claims 1 or 11 without their own inventive effort.

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More specifically, *Ashenden et al.* only states "the choice of communication via named channels means that broadcasting amounts to multiple processes receiving from a given channel ... if synchronous communication is used, the presence of multiple receivers implies a barrier beyond which none of the receivers nor the sender can pass until message transmission occurs". (Page 46, right hand column, lines 5-12).

Thus, *Ashenden et al.* serves merely as background information, and only describes the problems involved when multiple processes are received from a given sender (for synchronous communication); i.e., the barrier beyond which none of the receivers or sender can pass. There is no teaching or suggestion in *Ashenden et al.* as to how such a problem can be solved. Nor is there any teaching or suggestion in *Ashenden et al.* as to how one having ordinary skill in the art might arrive at the invention as recited in claims 1 and 11.

In view of the above-described deficiencies in *Ashenden et al.*, withdrawal of the rejection is respectfully requested.

III. REJECTIONS OF CLAIMS 2-3, 5-6 AND 13 UNDER 35 USC §103(a)

Claims 2-3 and 5-6 now stand rejected under 35 USC §103(a) based on *Ashenden et al.* in view of *Hoare*. Claim 13 stands rejected under 35 USC §103(a) based on *Ashenden et al.* in view of *Official Notice*. Withdrawal of each of these rejections is respectfully requested for at least the following reasons.

Claims 2-3, 5-6 and 13 each depend from claim 1 either directly or indirectly. Consequently, these claims may be distinguished over *Ashenden et al.* for at least the same reasons discussed above. *Hoare* and *Official Notice*, on the other hand, fail to make up for the above-discussed deficiencies in *Ashenden et al.* As a result, claims 2-3, 5-6 and 13 remain patentably distinguishable over the teachings of *Ashenden et al.*, *Hoare* and *Official Notice*, whether taken alone or in combination.

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IV. CONCLUSION

Accordingly, all claims 1-13 are believed to be allowable and the application is believed to be in condition for allowance. A prompt action to such end is earnestly solicited.

Should the Examiner feel that a telephone interview would be helpful to facilitate favorable prosecution of the above-identified application, the Examiner is invited to contact the undersigned at the telephone number provided below.

Should a petition for an extension of time be necessary for the timely reply to the outstanding Office Action (or if such a petition has been made and an additional extension is necessary), petition is hereby made and the Commissioner is authorized to charge any fees (including additional claim fees) to Deposit Account No. 18-0988.

Respectfully submitted,

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DATE: November 4, 2004

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